UNITED STATES
DEPARTMENT OF THE INTERIOR

DI-6

APPROVED DECEMBER 1941

871 Dakota Fm. July 19, 1987

Cobbs Creek, E bank 50 yds upstream, NE 1/4 Sec 4, T109N R30W, Brown Co. Minn. Refer to E. p. 7 S of New Ulm

Unit (1) - Dk Pierce Fm. Arenaceous sh w. some lignitized wood

871a From Pierce Unit 4

871b From level of but w. scattered pebble. Some lign. wood. Arenaceous clay & lead flays.

July 21

872

Temp 70°s in am
high 80's in pm

Bob Cat Butte, SE¼, NW¼, SE¼
Sec 29, T 13 S, R 10 W, Sloped
Hell Cr. Fm. app 60 m
below upper CONTACT

LATERAL ACCRETION OVERBANK
SS & SILTY C/AXS
WITH leaves
Cracinac ? wsl ? type
Trinervate Lindera
Androvettia
Cercid ellipticum
Metasequoia
Fern
Ficus aricarpoides
Serrate, semi-crassi, fine
leaf
Memycylaceae (reported
but we did not
find.

7/21/87

873

KRJ 87138

86102

Hell Creek Fm

Between LM 872 & Base of

Lower Marker SS.

Channel margin alt. Sand

& clays w/ SS x-bedded

& clay rip up clasts

Jungermannites ?

Dicot impression

Fern ?

Dryophyll.

Pinus ? fragment

Sec 28, T133N, R106W

Slope Co, N. Dak.

874
KRJ

7/21/87

Warm & sunny, mid 60's

87107

Hell Creek Fm

Center NE 1/4, NW 1/4, Sec. 33, T. 133 N, R. 105 W, Slope, Co. N.D.

K.R.J.'s Lower Wagner Sand of Hell Creek Fm

Flora

2 Bryophytes
Dryopteris subfalcata
Platanophyllum Mot.
Big Magnoliids
Paleocarpidium Dilleri

1 Sp. Liana?
Conifer

7/21/07

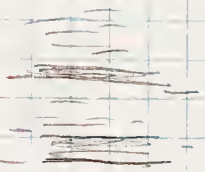
Cool, Cloudy, Windy
low 50's

Loc. 875

Fort Union Fm

Tullock Mbr

Bobcat Butte
Sec 28, T 133 N, R. 105 W, Slope Co., N.D.



1.4m

Base of Tfu

- lignite 30 cm } K pollen No In

Base of Tullock here lies at base of a lignite 50 cm thick but this lignite & the shale above it has K pollen & no In

K pollen body above the lignite analyzed in detail.

Base of Fort Union lies in the lacustrine dominated deposits above end of K.

This unit extends to Hell Creek as well.

7/22/87

Loc 876
KRJ 87160

Hell Creek
Flora in a SS
9.72m brown: Upper Cond. of
of Hell Creek w/ Tullocic
MA

1'

Loc. EAST BUTTE, SE1/4, NW1/4, SW1/4,
Sec 27, T 133N, R 105W
Slope Co, N.D.
MARMARTH SE, Quad

METASEQUOIA, NON decussate
F.
Dombeyopsis Trivialis
PLATANOID
Cissus marginatus
Salix JANCENSIS ?
Cercid. elliptic.um ?
AMESONEURON
METASEQUOIA cone.
Rhamnophyll w/ EUCHIPTA veins

7/23/87 Hot, P.C. in pm
Cool, Cloudy in am

LJH877
KRJ 87134

SW1/4, SE1/4, NW1/4, Sec. 28,
T 131N, R. 105W.
Bowman Co., N.D.

Near Sunset Butte, in
Complete section of
Hell Creek measured
by Mark J. &
D. Fastovsky

Levels collected

a. lower sandy level
b. middle clay layer
c. lateral clay & ss interbeds
= to a

Vitis Stantonii
Ficus artocarpoides
Dryophyllum
Platanophyllum montanum
Andrewsia
Metasequoia cuneata
Ginkgo
Rhamnophyll
2 lobed leaflet

Glypto. Sphenophyllum
Actinostrobus Crasp.

Top of lateral accretion unit
just below gumbo cap.
ss interbedded w/ convoluted
clay

7/23/87

Drove back to Marmarth by the ford of the Little Missouri

Top of Colgate on e bank of river. Ther very lt. grey ss capped by sl. brownish basal Hell Creek w carbonaceous layers.

Palm
Cercidiphyllum lvs & fruits
large Magnoliid
Platanoid? cf Platanus nobilis

7/24/87 LJH 877

KKJ 86 1/2 W 8701
or H-H Bone
NE 1/4, SW 1/4 Sec 23, T 133N, R 106W, Slope Co.

Looking at
Lateral accretion
beds > Channel abandonment
Meander belt.

Dino & Turtle in Thalweg.

Plants in overbank
Cercidiphyllum & Platanus
Ficus, Aralia, Corylus
Dryophyllum

80 meters below Top.

Thalweg deposits
are Buckskin Color (Brown)

abandoned channel

3m.

7/24/87

KR 87146

JH 878

C, SW 1/4, NE 1/4, Sec 8, T 133 N,
R 105 W, Slope Co., N Dak.

Bell Creek Fm.

Lower bdy of Upper 13
of H.C

Top of Lateral accretion
deposit

Direction
of flow of paleocurrent

7/24/89 879
KBJ 87147

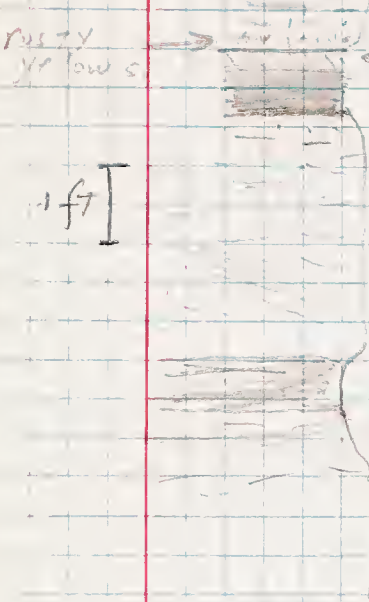
Hell Creek Fm. - Ludlow Mbr.
Ft. Union Fm.

level 87147 c.

Bp. of an 8" coal seam
upper 3" becomes sooty
clayey w/ carnivore
sprays replaced by
Amber, Amber blebs in

879 Cont.

COAL
4' above Gwathey
coal
Sampled for battery
by D. Nichols
Farley Fleming

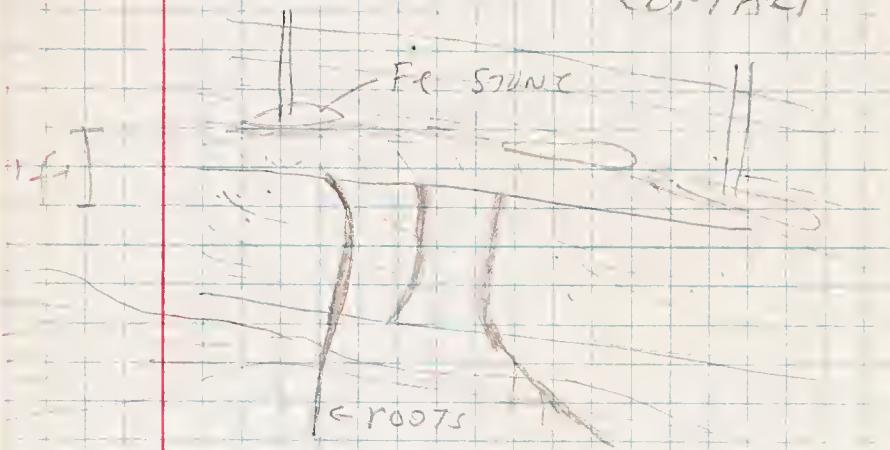


8710

NEAR KR 187127

Fe cut near Pretty Butte, w. side of road.

140' below the contact



Roots below a crumbly

7/25/87 Hot & Sunny

8711

KRJ 87129

Hell Creek

Base of Sandstone bed
lower POINT bed
w/ diverse flora 28 Forms

Dryophyllum overwhelming Dominant
Protophyllum rare
Pistia
Metasequoia
"TETRACERA"
Ginkgo
Ficus arid
Celastrus laurinensis
TAXODIACEAE
&
others
Cf. ULMACEAE ? AINUS

LOC, Center SE 1/4, SE 1/4,
Sec. 23, T13N, R10E,
Slope Co., N.D.
Immediately W of
Golva Rd
PRETTY BUTTE QUAD

LJH 8912 Pyramid Butte

KRS 87106

Fort Union Fm.

Float in Oligocene sands

& gravels

~1 ft above boundary

Coal

1 m

W

Fossil log

Tr

Dominant ?

✓ Populus Nebrascensis

Pa. angulphacea - Crassifolia

Dicotylophyllum - Zingiberales

Comm. Sapindaceae

Trees

16 taxa of which four are dated

7/25/87

KRJ 8616 Pyramid Butte
Fort Union Fm.

77 Cm. above base of basal lignite

Interbedded red, tan, gray & black & dark gray

Farley Fleming sample for Paleostrum Screenchesmus

Chlorococcales
Cerevisiae Type

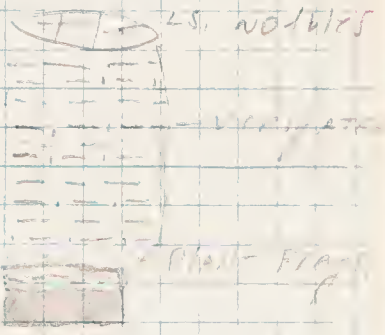
Closely related forms
Common ancestor in Permian Tr

LJH 6713
KRJ 16148

Normal Outfit

An CONTACT Lenses

Contact Lenses



Lens Design

KERATICON 3 Pair

7/26/87
8715
KRS 87144

Hell Creek / F.U. Bdy.

By Thin lignites
are not expanded
very far.

W. Farley Fleming
Doug Nichols
Kirk Johnson
D. Linda Raubeson

7/28/87

Hot & Sunny

KRJ - Measured Sec. 87155

Unit	Thick.	Description
1		Base in Hell Creek Formation (Farms Valley Flow).
2	20 cm	Whitish weathering hard blocky & rooted ss.
3	140	Dk grey, jumbo weathering Mudstone, fissile at base & top. Fort Union Fm, basal Unit.
4.	4 km NJ + 76	Variegated bdl. Interbedded & fine grey mudst., orange green stone layers, & thin dk grey coals. Ponded water in ft.

at 125 cm from 87155a

SECT KRJ 8315T Cont.

AT 1.60 cm. Thin Carb Shale, 15 Cm. Thick

115 + 2HI UNIT lt. grey elsewhere buckskin

Thin Carb shale AT 2HI (Top of grey unit)

3HI Unit becomes grey again.

5 9 Carb Sh. brownish grey Thickens to west is truncated by overlying unit to SE

6 3HI SS, medium lt grey, well bedded Fines toward top w/ some mudstone interbeds Initial accretion N.S. Unit downcutting to SE Top of Section

Vertebrated Beds

1. 3 CATHARTIDAE 3 MAMMALS
   3 Cathartidae
   2 grey
   1 buckskin - color freak

A Soil
B Kerion
C Pond

7/29/87

W. K. Johnson
E. Hicks
F. Lewing.

CANNONBALL MARINE Tongue
Upper mbr. in the Type
Section of the Slope Fm.
(Upper Lwr Plow)

Cannonball is a
Carb fissle shale abt 6'
thick w a layer &
pods of oysters
(Crassostrea) in it.
Cracker'd by Cans

7/31/87

Drove to Thermopolis, Wyo. from Marmarth, N.D. (410 mi). Went by way of Ekalaka, Mont. and spoke w/ Marshall Lambert at the Carter Co. Museum. He showed us a baby Pachycephalosaurus skull he had found near Ekalaka.

Talked of his work with the museum and how he has had very little help in keeping it up or building it. The museum is in a new location since my visit to the basement of the high school in the late 60's. Marshall has added to an old garage that forms the nucleus of the museum.

From there we took the gravel and dirt road to Powderville across some wide open prarie and broken, pine-forest rims and buttes. Crossed Beaver Divide & went past "Claw Butte".

Last traces of the Eastern Deciduous forest passed shortly after dropping off the Beaver Flats rim before the divide between Beaver Creek and the Powder River. Green Ash & American or Red Elm in gallery & woodlands.

8/1/87

W. J. Lillegraven
Jordan Clark
K. Johnson

Cedar Hill - N. EAST of Thermopolis, Wyo.

E. U.
Sand:
White V. f. to c.
Lt. gray
Mica
Lignite

Kirby Creek

SW Cedar Hill Quad

Mesa verde ton.
Basal Coal

① - Basal Coal of U. Mesa Verde
Mesa verde or Lewis
Age -
Became Loc 8728

HOT & SUNNY

8/1/87

2JH 6720 - 420 m., S; 200 m. W of NE Cor. Sec. 12, T 44 N, R. 94W, Hot Springs Co., Wyo.
Cedar Mt. 7½ Quad.

MEETEETSE FM.

LIVERWORT HOLLOW

LIVERWORT
ONOCEA
ARAUCARIAN CONE SCALES
? Ginkgo
JUDITH PLATANOID of RAYNOLDS, 1976
4 OTHER DICOTS
Coniophyllum

IN a MULSTONE & V.F.G. SS. AT TOP of SS CHANNEL SEQUENCE

W. K. R. Johnson
J. Lillegraven
J. Clark

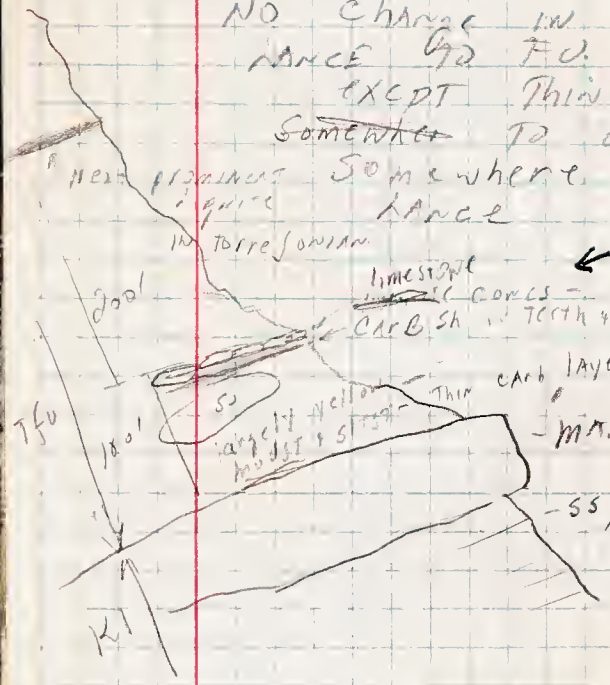
HOT, SUNNY

8/1/87 SE 1/4, NW 1/4, Sec. 1, T 44 N, R 94 W, Hot Springs Co., Wyo. Cedar MT. Quad

8721 Ledger To Sec TO Loc. of J. Lillegraven

IN Lowest FORT UNION
abt. 100' above highest DINO Bone

NO change in lith from LANCE to FU.
EXCPT Thin lignites start to appear somewhere above LANCE



Revisited on 8/5/87

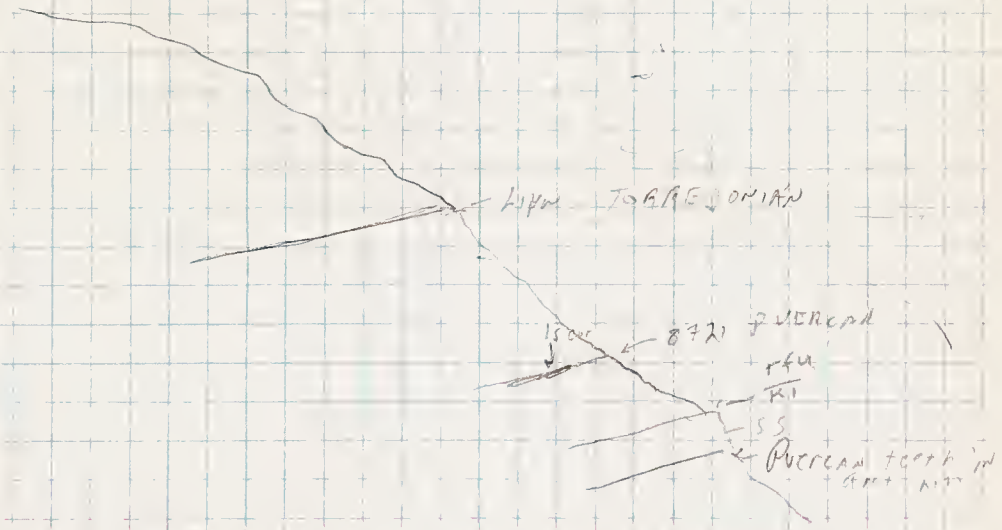
7721

above this SS becomes
unconformable = ICNTICULAR
upper most SS of LANCE IS
a Sheet SS. well ind.

Loc W.
Conical Pavilion WYS X-TRA
Dinner by CANDLELIGHT
like Cathedral w/ TECTA
Large MAGNOLIA
CHAIRS
NO GYMNOSP
PALMS

FLORA IS IN FIRST PERSISTENT
LIGNITIC INTERVAL
above SS.

PUERCAN MAMMAL SITE OF
HARTMAN.


LYON - TORREJONIAN
1500'
8721 PUERCAN
PU
P1
S S
PUERCAN teeth in
ANT

JH 8722 660 m S; 335 m E, NW cor Sec 6 T 44N., R 93 W, Hot Springs Co., Wyo. Cedar Mt. Quad.

Possible K/t Gardner Sample

1 Base at Top of prominent whitish yellow, friable SS

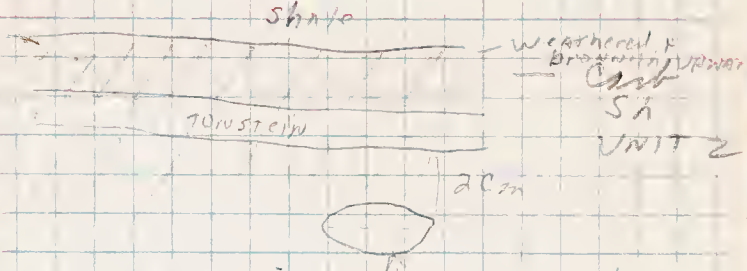
2 ~~72~~ 72 cm Carb unit - Black to dk grey carb sh w/ stringers of lignite @ 69-70 cm
Parting - ~~whitish~~ iron stained sandy to clay bed 5 cm
Lens of silty sand 2 cm below

3 45 cm Shale, lt grey to olive green. with sandy stringers

2.5 m Sand - lenticular yellow brown friable

Samples in unit 2

8722 a 34-40 cm.
b 60-65 cm just below "Tonstein"
c 69-70 cm "Tonstein"
d 70-75 cm Carb shale above Tonstein



TONSTEIN of irregular thickness occasionally up to 3.5 cm.

20M WEST CARB UNIT SPLITS by intrusion of a crevasse splay SS "TONSTEIN" stays in lower UNIT

PICK HT	INTERVAL
	PICK HEIGHTS TO ANT HILL
	SAND
4	COAL Carb Sh. H.S Top
	5-6-7-8-9-10-11-12-13-14-15-16-17-
5	SAND - CONCRETIONARY IN PLACES
	f.g. xbedded & CARB TOP
	friable INTERVALS 19-20-21-22
18.	PUCRCAN ANT HILL 23
23.5	TOP of ~~SAND~~ HILL
	ANOTHER 20' TO TOP of SECT.

above Quercan
A Harlem zone
then good Torrejonian
mammals

- Double Yuk Site - Torrejon
Top of hills w/ Ledy SS
is base of Tiffanian

Top of soft sandy section
here is Top of
Torrejonian

Tiffanian - Ledy SS
& Clinker

East Hill Site
in Tiffanian
See above Sec. 6

Top of Hill 5090 ft.

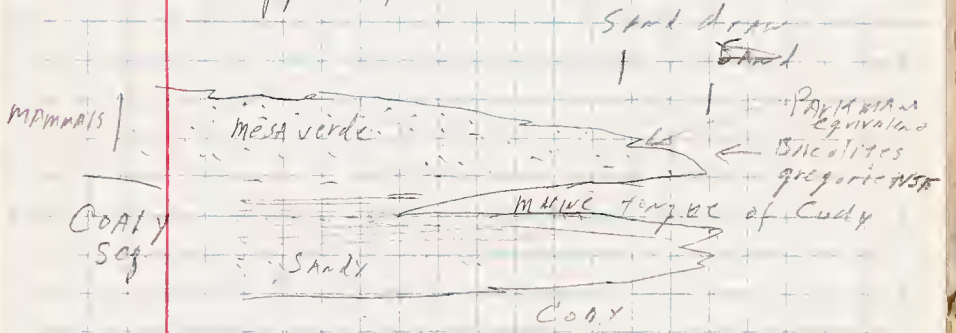
Sunny, Warm

8/2/87

w/ J. Hillegonds
K. Johnson

Mesa Verde Section
on Cottonwood Creek
JUST E. OF ITS Crossing of Hwy. 120.
Stringer sand transition from
Cody
Thin Sand Coal sequence
old mine on Road
prospected no good vals.

Mesa Verde
Transition w/ Cody
Upper part



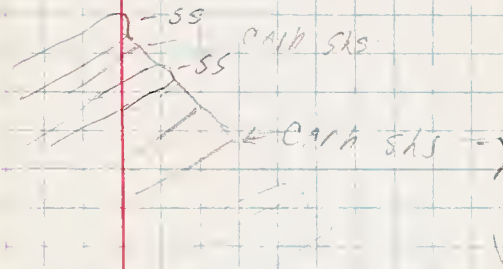
8/2/87
8723

Sunny & Hot

Head of Sand Draw
SW 1/4, T45N, R96W, Hot Spgs. Co, Wyo.

Lance Fm - somber greenish gumbo'd with lenticular rusty ~~yell~~ brown SS lenses.
Good for vert's in lower portion looks first for dinos.

Fort Union at top of ~~Fm~~ Fuesta



w/ J. Lillegraven
K. B. Johnson

SUNNY & HOT

8/2/87 8724 FALSE LARCO LOC

CENTER W bdy, Sec. 9, T 45N., R 96W
HOT SPRINGS CO., WYO. BLUE MESA WEST 7½' QUAD

FORT UNION FM.
- TORREJONIAN BONE LOC.
IN MUDST & UNDERLYING SS. UNIT.

TO WEST & DOWN SECTION IS K/T BDY
WHICH SICUT JASON IF SO, HOWEVER TO EAGLE DOME LM.
DPLANT MATERIAL

MUDY T. THURC/ATES
CRACS
TURTLE

W. J. Lillegraven
K. R. Johnson

SUNNY & HOT

Cody 1:250,000 QUAD.

8/2/87 DUST LANCE - LOC.

LOC 8725 SW 1/4, T 50 N, R. 100 W, PARK CO.

Lower Tiffanian

Very prolific mammal loc

ft Union Sandy, yellowish brown, channels shallow lenticular

Some tabular carbonaceous layers w/ brownish argil shales

looks like Upper Clark Fork Basin

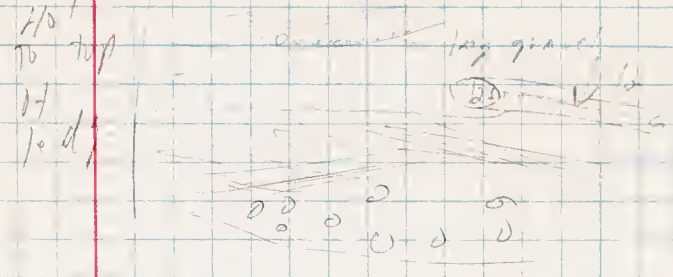
N. Basin

As a relatively well-drained high sedimentation area

~~Fordyce Ridge Coal~~

8/2/87 Meeteetse
Loc 8726

Fort Union Fm.
Meeteetse Quad.
SS w Quartzite Congls.
x bedded
w/ log prts.



Massive siltstone, resistant, forms ledges
Fossil sources
Gastropods, ptz

Pg 7

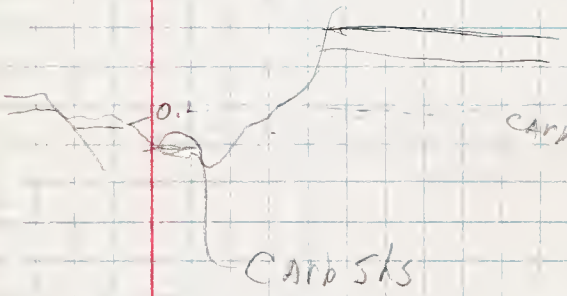
Hewitt's Foresight Locs

At Foresight 2
Histosol s
Carb. layer @ bt 2'

Bone Bed in Carb shale
Bone frags
Leaf frags in Carb sh

Mottled layer below

Mnr. visc slump blocks



5 to 8 beds stacked

Relatively undiverse ~~Simple~~
mammal fauna
TYPICAL LANCE (TYPE) FAUNA

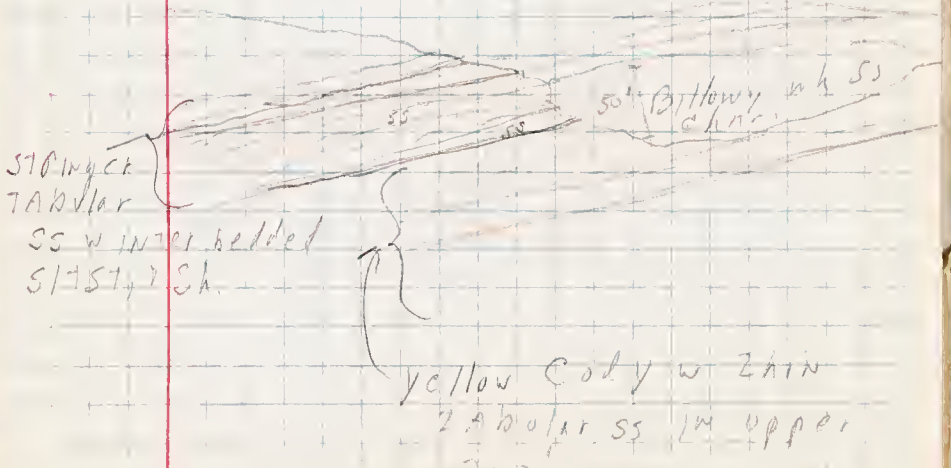
6/3/87 Morning in Thermopolis drive to Car repairs and Change in field by 1:30 p.m.

w/ Kirk Johnson Hot + Sunny

8728 Mesa Verde - Cody Contact

Cody sh. in this area wh. yellow

Loc. Center SE1/4, Sec. 7, T 44 N, R 93 W, Hot Spgs. Co., Wyo. Cedar Mt. Quad.



Loc 6728

This transition to ~~Co~~ Mesa Verde from Cody very similar to that at KANGUK - Eureka Sound

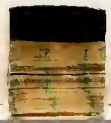
Stringer sands in shale below contact representing the delta slope

Then large tabular ss bodies interbedded w/ s/stst & coal mudst & s.l. Otter dead white leached s/t of vfg ss below tabular ss

This basal Mesaverde sequence is interrupted by discontinuous bluish white ss lenses representing channel chutes (probably).

NE¼ SE¼ Sec 7 T 44N, R 93W
on Double Draw | Hot Spgs. Co, Wyo
Cedar Mt. 7½ Quad

Vert Bone at circled dot with loc Bounds.
Dino, croc much scrap found CAMP of J Lillegraven



NEAR 8728

SS Channel well down in
Cody in Corner S 1/2
Sec 8
Channels occur at several
levels in Mesa verde

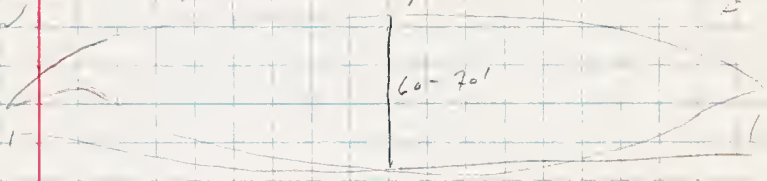
8/3/82

9729 Channel Section

Mesaverde

Center Sec. 8, T44N, R.93W,
Hot Springs Co., Wyo.
Cedar Mt. Quad.

SS Channel some through
x-beds, polygonal cracks
in surface
Planar beds toward upper
contact of Channel
upper contact marked by
ironstone spheres



dense aggregations

SUNNY, WARM
PLEASANT

8/13/87
Loc 8730

Meeteetse Fm.
Lower Member
upper brecciated Silt/mudstone
SS - white to light grey
& mudst.
CAMP STATE

WD reconnaissance plant
fossils in this
Index Center, SE¼ sec.
T 44N - R 93W
Hot Spgs. Co., WYO
Cedar Mt. Quad.

W/ K B. Johnson

Sunny v. Hill

8/4/87 K.R. Johnson v. D. Hickey

Return To Loc. 8720
Liverwurst Hollow

Jungermannia
Platydes
Equisetum

8/5/87
Revisited 8721

Buyer to Get to 201.

Porosia
Cercidiphyllum
Cercis
Populus nebrescensis
Palm sw 8/4/87
Taxodioid Conifer

6/5/87

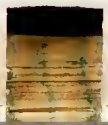
Loc 8731

Meeteetse Fm. Meeteetse Dome
NW¼,NW¼,NE¼ Sec 10, T 48N, R 100W

Quartzite

8/6/87

Locality 8332
Belfry Road Cut
Plant horizon in Grey
Marly Sh. about 20 feet
above Road on SW
side of Cut



Cool, Sunny

8/6/87 8733 = KRJ 8413

Hatcher Pass Qu-

tient Creek Mbr., Fort Union Fm. NE 1/4, SE 1/4, Sec 7

W. K. R. Johnson

leaves in muddy, flat bedded ss. app. 10 m above ~~base~~ basal contact of Tfu

Large Platanus raynoldsii
Cercidiphyllum
Also

Also Large Taxodium
Magnolias

ND Paramyrica or
Populus Nebrascensis

The above from KRJ.

8/6/87 Mentzelia Site 74134

my Loc 8734

Checked location & agreed in accordance w/ field check of bearings to

~~Be~~ NE1/4, SW1/4, Sec 27, T8S, R23E, Carbon Co., Mont

Revised Co-ordinates!

8/6/87

Loc. 7237
= Loc. 7650

Cerro Montoso Spruce
found here
found also about here
like Halemeds

8736
Close to old LJH Loc. 7424C
NW¼, NE¼ Sec 12, T 9 S, R 23 E.
Carbon Co, Utah
Hunter Creek Q

"Hunt's Creek Canyon"
near Paleocanyon found in 94

81.18
8137 =/JH 7.5

Taxodium distichi
"Ficus" aurocarpoides
Platanus orientalis
Cercidiphyllum
Pinus sect. cembrae

Stop (1) Cont.

Physical env
Geric changes from
tidal
seamy

- Mud dropped down by Ybeds
- Escavint

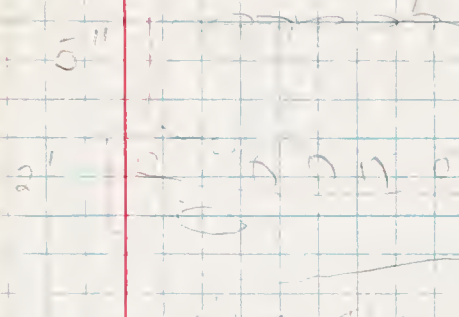
Sed Uniform Size
- Shark bed

3 Mollusk assemblage
- Unionoids & Some gastros

4 Dom by
Psiloidae

Unbroken, articulated
well preserved
basal side of Bulgaryc
shelving as edge
SS had mirrored str on
upper surface
Altered w/a Sl.
Schw. Interp as burrows

MINISCAN 7C - X-beds in Shaft U.



Stop (5) Unconformity Surface

Start change in abundance of Vertical fossil

Cross cross-bedding

Base of sandstone

Site 48 m below base of Lethbridge Coal Zone

Base of [illegible]

Most non-channel cross-bedding occurs low in section

Flat-based tabular units 3 m to 27 m

[illegible]

[illegible] 35 x 250 km in size

Highly carbonaceous fossil clams indicate quiet water deposition

Dinosaurs move zoned different into [illegible] here

Step 7

55 COMPACTION
IN SITU

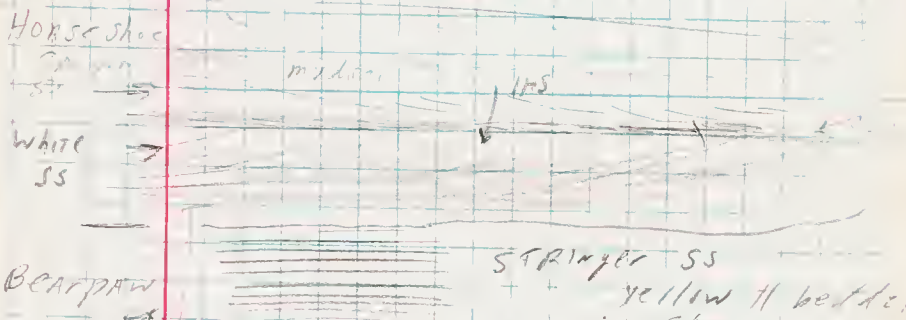
Per Proctor
to Inches

40 to Compaction
Volcanic Ash Layer
Consisted of Ash
B. C. N
Bowker Estates

8/14/52
Field Trip # 8

Base of Horseshoe Canyon

Section at west Monarch
ATA



STANDING ON FIBER

CLASSIC

KAOLINITIC

(PALEOSOL)

KNEE HILLS ONLY

Sunny + Mild

7/16/64

8738

Meeteetse Fm
on Cottonwood Creek

8738-a Arenaceous (Silty)
in flat medium white
clayey matrix
Carb. layer at
shallow depth to 10
to 24 prominent Scaly Surface

8738b Good Conifer wood
w/ preserved ~~tree~~ fine detail

SE¼ SW¼, Sec 15, T 9 S
R 99 W, Carbon Co. Mont
Cottonwood Creek Q

6/16/78

6739

Sec. 1, T. 1 S., R. 1 S.B.M.
Gem & Hundred Co. Coal
Carbon Co., Utah

Thin faulted Price R. ss, mudst
and possibly ls.

ONE ARAL CARBON stem [illegible]
found.

looks like ~~[illegible]~~ deposited on the margin
of a body of water.
"Delta foreslope"

Feeding traces

Unit 100' Thick
Thin layers of
rusty fabular ss
3" to 8" sticking out
Thicker slope

Lighter prominent beds
in valley between top
with fiber & base of
slope.
May be the same as in
Margin of EIK Basin

View at loc 8740 looking S.

Sunny V. Mill

8/18/87 8740

NW, NW 1/4 Sec 6 T 57N, R 98W, Park Co, Wy.

EIK BASIN Quad.

Upper Sediments
Lower Meeteetse

Upper most ledges of ~~of~~ SS of KJr on edges dip of Silver Tip grade upward into Shs & mudst w/ thin lenticular ledges of SS
Meeteetse / JR CONTACT gradational placed NW approximate position of creek bed [NOTE change from mapped contact]

No sign on this side of basin of tabular bedded SS, mudst unit of Cotton Wood Canyon Klm.

8/18/87

Section 8741 SW1/4, Sec. 6, T 57 N, R. 99 W, Park Co., Wyo.

Section STARTS in upper Judith River on a well pad located just below a SS. lens that I map as the highest in this area the K Jr

Judith River Fm

1 9.5 SS, Friable, lt grey, f.-m. lm vfg SS lens, brownish plant frags. 0.9m Thick

Top 5 m of UNIT med gr., becomes well cemented, concretionary, w/ red brown concretionary SS at top.

Dip at 5370

2 3.3 Friable buff SS vfg. sand, interval mainly covered.

3 0.6 SS, platey, lt yell grey

6741

Selected as local top of KJr.
May be a leached "B" horizon

12m 4 Mainly Covered [Loam runs through]

Soft wh material mudst, v laminated mostly friable SS unit wh jAw to yell. grey

13.5m SVNIT it friably lemt SS & gray wk mudST w/ popcorn crust ends in a 0.4m thick I.T. very apparently leached mudST

4m 655 friable ut base brownish red cuvea Cemented at top forms top of a foremost ledge immediately W. of road

Dip 35°

6.5 7. Covered interval mainly
of friable SS, moist
as at unit 6
Top 0.1 m a carb. &
friable SS.

3.3 m 8. SS, reddish brn, x-bedd'd
w/ clay pebble
conglo.
forms small ridge
W. of road.

11.2 9. Swale of soft reddish
SS, moist
becomes carbonaceous towards
top 0.3-0.4 m.

3.8 10 SS friable at base
becoming lithified to S
Concretionary x-bedd'd
as in unit 4 at top
0.3 m.

17.5 11 moist, friable lam. SS
interbedd'd
some thin carb layers
but sandy carb

Soil in moist w/ roots
at 15 m a.b.

8.2 m 12 SS, friable, f. Coarse
Constricted in Middle

forms shoulder
clay, pebble conc'l
in place of ss.
Top 0.3 m leached.

15 m 13 mudst & fine gr ss
interval
Dark sandy layers
mollusc moulds
Thin Intercalated 8-bedded
SS.

52.3 m 14 mudstone popcorn wth
mud grey wth
Soil structures
a very prominent soil
zone
6 m from soil
w fossil stumps
7 m timber branches
Sample mudst w roots &
6741 b stem fragms
6 1.4 m thick
Interval
See sketch

38.5 m ab Shoulder of
prominent soil interval

Seq of mudst. Soil

8741 (cont)

Wh. med. grey to med
tan grey, sl. brown
fr. silt
Some thin lent. ss
Some of these indurated
& forming shoulders of
titled natural cont. surf.

H 9.2 M ab.
→ 8741C rooted mudst
w. carbonaceous
material, poor pollen
prospect.

50 top of carb mudst
unit becomes
pnc sandy
to base of unit is

10.7 15 ss friable, x-bedded
thruout x-bedding
forms top of spur
here & has prominent
slip slope
becomes ind. 6 m ab.
Some carb. [illegible]
at channel bases

8/18/87

Sec 8741 will continue but observations in the area of the Scorpion Hollow Fault clearly indicate that terrestrial sedimentation occupies the interval from the top of the Judith River ss. dominated fluviatile sequence to the top of the Lance.

No trace of the 11 bedded ss/mudst. sequence was noted in ~~the~~ this interval either.

The whole Meeteetse interval here looks far more "Soilified" here than in the Bobcat Pass area and both of these more so than in the southern Bighorn Basin.

Of the three pollen samples taken more really looked promising

The Lance is really a series of relatively broad, shallow channel lenses (on order of 1/4 to 2 mi) interspersed with leached "Hell Creek" looking sediment.

No unconformity or disconformity was observed.
Fox Hills / Bearpaw interval here from APE map is flat-out wrong.

Sunny 1 mi N

8/19/87

T742

150' to E of Clarks Fork

Δ STATION

Picked up Haile Jo/a 65 here as mapped by Jurewicz

Below Yur. 8521 it II is 3rd 65 from top

87

8/19/18 — Sunny, warm, windy
C743 — SW¼ NW¼, Sec 20, T 58N, R 93W, Park Co, Wyo.
Interval Sect. Belfry
Mbr. of Tfu

Sections STARTS at BASE of "Hall II" SS for interval.

1.1 — 1 — Hall II SS [illegible]

10.3 — 2 — Fine grained interval of [illegible] Marly mudst. & Sh. Lignite stringers between 1.5 & 2.2 m

6.2 — 3 — SS. friable at base, [illegible] Basal 2/3rds trough xbedded upper ⅓ 0.8 m w/ disturbed laminae becoming [illegible] to wards the top.

4.9 — 4 — Soft interval [illegible]

6.3 — 5 — SS, base downcutting basal bedding [illegible]

8743

Contoured as well
Medial 2 m a ~~[illegible]~~
Marly unit
Top of Trough X-bedded SS
Fossil Top of 24' Spur Sec.

Lost: Lid SS.

2.5 6 Very lt. tan w/h
marly unit w/
dis continuous ~~[illegible]~~
~~[illegible]~~ water lis. conglS.
up to 0.4 m thick lnl
base.

0.4 7 SS, indurated/
distributed pedogenic

See plot of Section on second
next page

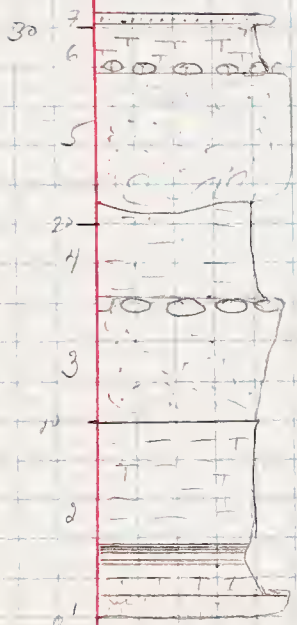
Sunny & warm.

8/19/63

Loc. 8944 Carin Built 3W
Turning pt. of
Hallelujah II

8/20/87
Sec. 8 T 43

P107



Lost Lid Sc.

Halifax II

Cooly Sunny

87-5.

6/22/87

About 100 m N of Sect.
line 87-41

Amber bearing fissile, rooted
mudst. w/ f Elattoc.
Equivalent to Unit 14
at 7m.
approximat level of 867
but could not refind
the actual site.

Sunny & Cool

8/22/87

Starting Section 6741 again
6-17 Top of hard SS
Hedge at unit

7.5m 16 SS, friable, yellow TAN
some lacing
laminated, mostly ll bedded
& flat bedded

11 17 MAIN Covered, INTERNAL
IN SWALE between Hogback
ridges of Gh SS
appears to be washed
Sandy wash ripe 7.5m
edges of Covered SS

11.6 18 Covered but appears to
be mainly carbonaceous
MUDST & MUDST, SLST
& MINOR friable SS

20.2 19 SS & SLST. ll bedded
& laminated
becomes gradually
smaller upward to
6m Then less sandy
& thicker bedded beyond
6m

Sec 874 (cont)

1.2 | 20 SS ind ledge of flat bedding
f2

3m | 21 Thin ~~[illegible]~~ bedded SS + Silt
ledges less ft
fissile
pebbles

3.1 m | 22 Major SS ledge
yellow brown (5YR 5/4)
fine grained with
2/3rds ~~[illegible]~~ through
beds to upper 1/3

3L | 23 Grey mudst // bedded
carb toward top

0.7 | 24 SS, mid Low L ~~[illegible]~~ Trough
y-bedded

CAIN built at temp
Terminus of section
on top of UNIT 22

50 # 8, 1 1/4 [illegible]
WOOD SCREWS

1 TAPE, MASKING, ROLL

2oz 10% HCL

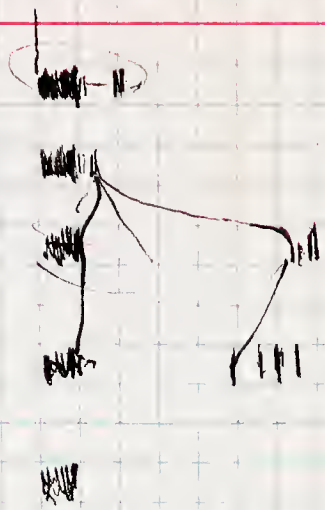
1 QT 10W-30 MOTOR OIL

1 CAN, GOKEY'S INDIAN DRESSING

1/2 ROLL MASKING TAPE

LEFT IN RED LODGE 1967

1	GASOLINE LANTERN
1	FUNNEL
35	WOOD SCREWS 1½ INCH
1	PKG. ALUMINUM FOIL
20	1½ X 8 WOOD SCREWS
1	1 GAL. WATER COOLER
	100 FT. NYLON ROPE
1	HH PENCIL
1	2H PENCIL
1	BOTTLE SALT TABLE
½	ROLL CAMP
1	MATCH
1	CANTEEN & CUP
1	QT. CANTEEN
2	CANVAS BUCKETS
2	GAUGE MICAS
1	AXE
2	TARPS
1	CAN KITWAX
	TUBE DUCO CEMENT
8	TOILET PAPER ~~HHHH~~ III
	1 TUBE #15 SUNBLOCK
1	FLAGGING ROLL
2	ROLLS SINGLE RAZ'S, 2 PACK
1	GRAPHITE PACKING
	SILICONE PACKING ROLL ~~HH~~ I
	DUCO CEMENT, TUBES II
	SILICONE CAULK 1 TUBES
2	6' GALVENIZED BOX WALLS
2	PAPER TOWEL, ROLLS



HEIDI EIJGEL
C/O DINOSAUR PROV. PARK
BOX 60
PATRICIA, ALTA
TOJ 2KO

Send her info
re plants she has